ABSTRACT

An implantable or insertable medical device which comprises (a) a therapeutic agent and (b) a polymeric release region comprising a polymer. The polymeric release region is treated with a radiation dose that is effective to substantially increase the cumulative release of the therapeutic agent subsequent to administration to a patient. The polymeric release region can be, for example, (a) a carrier region that comprises the therapeutic agent or (b) a barrier region that is disposed over a therapeutic-agent-containing region that comprises the therapeutic agent. The present invention is further directed to methods of forming such medical devices, methods of releasing a therapeutic agent within a patient using such medical devices, and methods of modulating the release of a therapeutic agent from such medical devices.